

Volume 2, Number 12

March 31, 1991

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E D I T O R I A L S

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Greetings all!

Hi folks, this is the long awaited issue 12 of the second volume. I have not been getting much in the way of usable articles of late so I apologize for the delay but we have moved and things have been a bit hectic. I hope you enjoy this, the last of volume #2.

Here is some good info on the 10-10 club this month, this was culled from the Fidonet HAM echomail area. I have also been selected as the moderator for the Fidonet HAM echomail area since the last issue.

The Fidonet Ham/Packet Digest is now available via land carried mail,

all you need to do is send in a blank formatted 720K or 360K diskette with a postage paid mailer. I'll keep them on file and send you the new issue as it becomes available. For those of you that are not in the US and Canada, just include two IRC's to cover return postage.

When you get your issue in the mail, send in another diskette and I'll put the next issue out to you as soon as it's ready. Sound simple? It is!

This newsletter is and has been distributed via the Fidonet SDS, it is also available for downloading from GEnie, and the SouthSide BBS. File requests are not honored between the hours of 3am to 5am EST. 300 baud is not supported by this system.

As always, your feedback is valued and important to me, thanks go to those that have taken 2 minutes and filled out the attached survey form.

73 de KB9BVN

SouthSide BBS - 317-535-9097 - 12/24/9600 HST (no 300 baud)  
(Node 1:231/30)

I hope you enjoy this issue!

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B U L L E T I N S

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IC-W2A Announcement

FOR IMMEDIATE RELEASE

ICOM INTRODUCES THE IC-W2A DUAL BAND FM TRANSCEIVER

MARCH 21, 1991

Icom continues to lead the way in dual band handhelds with the introduction of the IC-W2A dual band handheld. Operating on 2-meters and 440MHz has never been so much fun! Exceptional product design and innovation gives you the advantage of choosing the new IC-W2A or the IC-24AT dual bander. Replacing the IC-32AT, the new IC-W2A has a tough act to follow but with all the additional features it will be the talk on all the air waves.

\*COMPACT AND LIGHTWEIGHT

The IC-W2A measures only 2.1(W) x 5.3(H) x 1.4(D)inches and weighs less than 16 ounces. For a perfect grip the new IC-W2A is just 6.7 inches around and features side panel ridges.

\*SIMULTANEOUS RECEIVE

The new IC-W2A has the capability to receive two band signals simultaneously. Receive on one band while transmitting on another. Conversation is unrestricted! Furthermore, wait for scheduled QSO's on one band while operating on the other.

\*DUAL BAND CONVENIENCE

Dual band operation has never been so easy. The new IC-W2A has completely independent volume, squelch, frequency displays and speaker jacks.

\*60 MEMORY CHANNELS

Each band is equipped with 30 memory channels and 1 call channel. These channels offer space to store the operating frequency, offset direction, offset frequency and subaudible tone frequency for simple repeater accessing.

\*BUILT-IN PAGER AND CODE SQUELCH FUNCTION

Enjoy selective calling and quiet, personalized communications without installing an optional unit. It's all built-in!

\*FIVE WATTS

The IC-W2A puts out a full five watts output by connecting a 13.5 volt DC power supply.

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\*AUTO DIALING

With four DTMF code memory channels, swift access to an autopatch station or repeater control is possible.

The rugged, splash resistant IC-W2A has a multitude of additional features such as a 24 hour clock, a variety of scanning functions, and a full line of options to make your dual band operation simple and fun!

The IC-W2A will be available at the end of March, 1991.

Suggested retail price is \$629.00. For a brochure on the new IC-W2A please call the Icom Brochure Request Hotline at 1-800-999-9877.

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FCC May Ban Police/Fire/Medical Scanning

- \* Forwarded from "WNY\_SCAN"
- \* Originally from Phillip Dampier
- \* Originally dated 28 Mar 91 14:58:00

Note this little outrage I just received off the wires:

In a surprise move, the Federal Communications Commission has opened a formal inquiry into the feasibility of banning scanner manufacturers from selling scanners that can receive police, medical emergency, and fire frequencies. Citing interference in official public safety operations by scanner wielding members of the public, all five FCC commissioners have unanimously approved proposals that would make it illegal to monitor any frequencies which contain public safety transmissions.

In the notice of proposed rulemaking, the FCC has required scanner manufacturers to show due cause why they could not manufacture receivers that would eliminate all public safety frequency allocations. Many scanner manufacturers are expected to state that the costs of modifying existing radio designs would be prohibitively expensive to the consumer.

The FCC noted that state and local laws which already ban mobile scanner monitoring are just the first step aimed at protecting the health, safety, and general welfare of citizens as well as public safety officials.

The Bush Administration has indicated it would support the introduction of new laws making it a federal offense for any citizen to monitor public safety frequencies unless they hold a special license certifying their need to monitor such frequencies. The new law could be a part of the Bush Administration anti-crime legislative package to be introduced during this session of Congress.

Analysts say the move has been brought about in part because of high publicity cases of illicit drug operations employing fulltime staffs to monitor law enforcement frequencies to give them advance warning of impending police action.

Any legislation is likely to be introduced and supported primarily by the Republican party. Senator Howard Metzenbaum (D-OH) and Albert Gore, Jr. (D-TN) have asked the FCC for clarification of its proposed rulemaking. Both are concerned about possible first amendment violations of citizens prevented from monitoring publicly funded transmissions.

Gore added that such restrictive laws are counter productive, noting that many Neighborhood Watch programs based in his home state of Tennessee utilize inexpensive scanner radios to monitor neighborhood police activity.

Manufacturers are required to respond by June 7th. The FCC is expected to make a quick decision on the matter in time to work with

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Congress to introduce the necessary legislation during the summer.

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Any comments from the Commission on this foolishness? Are ham operators going to be exempt? Has the Commission lost its collective mind? How are they going to enforce listening laws like this, with hundreds of thousands of scanners already in the hands of the general public, when they can't adequately enforce the existing laws regarding licensed transmitters? Who is going to pay for this farce?

I also note that this supposed release has no NPRM or NOI number. Is there one, or is the FCC going to violate the Administrative Procedures Act and its own policies (again) and just do what it thinks it can get away with?

--- FD 1.99c  
\* Origin: NF2G Online - Greece, NY (1:260/218)

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W5YI Excerpt - ATTN US HAMS!!!

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:: THE W5YI REPORT ::

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:: D i t s & B i t s ::  
:: :  
:: Vol 13 # 5 --- 03/01/91 ::  
:: :  
:: HamNet Electronic Edition ::  
:: CompuServe's Ham/SWL Forum ::  
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Up to the minute news from the worlds of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

This HamNet Electronic Edition is a limited excerpt from the full published edition of The W5YI Report. Selected and prepared by Scott, W3VS.

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IMPORTANT Note: Some of the material included in The W5YI Report - Electronic Edition may not be suitable for transmission via Amateur Radio.

In this issue:

- FCC Looks into Mandatory Ham Radio, Scanner Mods

HamNet thanks Fred Maia, W5YI, for permission to excerpt this Electronic Edition of his W5YI Report. The full ten-page biweekly newsletter is available by mail for \$24.50 per year from Fred at Dept. C, PO Box 565101, Dallas, TX 75356-5101.

Telephone: 817-461-6443. Samples available for a 2 stamp large SASE.

:::

Do you have Amateur Radio news to contribute to The W5YI Report? If so, please call (817) 461-6443 and leave a message on Fred's recorder!

:::

- o FCC Looks into Mandatory Ham Radio, Scanner Mods!

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The FCC's investigation of state and local "scanner laws" has taken an unusual - even disturbing - turn. The agency is studying whether to

preempt such laws, which in some states forbid hams from having amateur radios that can pick up public-safety bands in a vehicle.

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This is a continuation of a proceeding in which ARRL asked the FCC to make such a pre-emption, for licensed hams only. The Personal Radio Steering Group asked for a similar pre-emption for General Mobile Radio Service (GMRS) licensees, and the Association of North American Radio Clubs (representing the unlicensed short-wave listener) asked for a federal pre-emption for licensees and non-licensees alike.

The ARRL asked more than a year ago for the same type of federal action as PRB-1 to exempt hams from burdensome state laws that forbid citizens from having radios in cars that can pick up police, fire or other government transmissions.

The PRB-1 pre-emption has prevented many cities from ordering hams off the air or towers to be reduced or removed. It basically says that local and state regulation must not preclude and must reasonably accommodate amateur service communications "...and must constitute the minimum practicable regulation to accomplish the state or local authority's legitimate purpose."

New Jersey requires police-issued shortwave radio permits...while Kentucky law authorizes officials to immediately seize and destroy radio equipment capable of receiving police signals. A Michigan statute exempts some licensed amateurs - but strangely not the Novice or Technician class! The objective of these state laws is to make it difficult for criminals to become aware of their detection by police.

The ARRL pointed out that most two meter transceivers receive between 139-174 MHz which includes many public safety frequencies. The League believes that regulation and use of radio apparatus is solely a federal function -- not to be left to the states -- and that neither the Communications Act or the Electronic Communications Privacy Act (ECPA) prohibit reception by the public of unscrambled police, fire or other governmental radio systems.

The FCC has already received comments that describe harassment by law enforcement officers of amateurs who have such equipment. On February 13, the FCC adopted a new Notice of Inquiry (NOI) to seek further information prior to adopting a Notice of Proposed Rulemaking. The FCC also could conclude from the public comments that no action is needed and consider the proceeding no further.

Three of the five Commissioners have already said they don't want to pre-empt the laws, however. Instead, they want to know how existing ham transceivers and scanners could be modified to remove any capability to receive public-safety radio frequencies. Under this proposal, new scanners and ham-gear would have to be designed to skip public-safety bands.

#### Unprecedented Concept!

The idea that owners of existing equipment would be required by the FCC to delete frequencies -- and that receivers could no longer be manufactured with the ability to pick up police, fire and medical communications -- is unprecedented.

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The FCC news release said, "It would be helpful to have additional information on the technical and financial feasibility of modifying existing transceivers to remove the capability to receive police or other public safety channels, and on the current and future marketplace availability of mobile equipment meeting the restrictions of the subject laws."

#### Limited to Hams or not?

The release claimed that the laws and issues addressed in the NOI would concern only the reception capability of amateur transceivers, transmission by an amateur operator on unauthorized frequencies clearly being prohibited.

Apparently, however, the NOI will examine scanner availability and also will ask if an exemption is warranted for GMRS equipment. The 460 MHz General Mobile Radio Service is one of the Part 95 Personal Radio Services, and some public-safety agencies are licensed in GMRS. Many hams, families and volunteer groups use GMRS. This provides a conundrum for the FCC as it considers a ban on personal ownership of equipment that can receive public-safety communications.

Possibly to bypass such issues, the ARRL had suggested that the pre-emption be limited only to licensed hams and should presumably not concern the ability of other licensees or the general public to own public-safety receivers.

Excerpts of FCC discussion

(FCC Attorney Eric Malinen:) "Good morning, Mr. Chairman and Commissioners. The item before you is a Notice of Inquiry to examine the need to pre-empt certain state and local laws that may effectively prohibit amateur operator possession of mobile amateur radio transceivers.

"The laws at issue, often called scanner laws, prohibit the mere possession of radio receivers in vehicles, when the receivers are capable of receiving police or other public-safety channels. Penalties under these laws may include fines and confiscation of equipment.

"Part 97 of the Commission's rules, however, generally permits the amateur operator to use amateur radio transceivers in locations of their own choosing, including use in vehicles. This then, is a potential conflict that might warrant pre-emptive action by the Commission.

"This item is the result of a petition for declaratory ruling filed by the American Radio Relay League. The League cites instances where amateur operators have had their equipment confiscated while simply traveling out of their home state or county which has no scanner law, to another jurisdiction that has such a law.

"The League also states that amateurs have long been active in governmental response activities, Civil Air Patrol, search and rescue

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undertakings, and that these activities which are legitimately open to amateurs require out-of-band receiver capability.

"Modern technology and the worldwide market for amateur equipment have combined to provide amateur operators with low-cost manufactured mobile transceivers that do move beyond the amateur frequencies to receive multiple adjacent channels including police and other public-safety frequencies here at issue. Moreover, currently there are over one-half million amateur licensees in the United States. Over half of these are estimated to conduct mobile operations.

"Thus, potentially hundreds of thousands of mobile transceivers used for authorized amateur communication may be found illegal for mobile possession under current state or local laws either in the amateur's home state or when he or she travels to another jurisdiction that enforces scanner laws.

"This inquiry seeks to obtain information such as the technical feasibility of modifying existing equipment to remove the capability to receive police or other public-safety channels, and the marketplace availability, currently, of equipment that does not receive these channels. ...For these reasons, we recommend that this Notice of Inquiry be adopted."

(Commissioner James Quello:) "I think the inquiry will allow us to make a fair assessment of whether or not preemption of state and local laws is warranted. Good item."

(Commissioner Sherrie Marshall:) "I would urge manufacturers to participate very actively in this proceeding, to give us hard data on the cost of manufacturing scanners that are incapable of receiving public safety channels. I am generally reluctant to pre-empt state laws, particularly those dealing with public safety. So those who would have us pre-empt anti-scanner laws will have to demonstrate that it would be prohibitively expensive to design and manufacture scanners that comply with those laws."

(Commissioner Ervin Duggan:) "Mr. Chairman, I support this item, it's a good inquiry to make. I just want to point out that the Associated Public Safety Communications Officers, APCO, has suggested that the real answer here lies in encryption technology that would make it possible to protect public safety messages without scanner laws. I would hope that the record that we build will make a thorough investigation of the possibility of using encryption technology, which would make it unnecessary for us to come to the question of pre-empting state laws that might have a legitimate public safety purpose."

(Chairman Alfred Sikes:) "I would like to add my voice to the others. I am very reluctant to pre-empt state laws in this area, where they are attempting to protect their law enforcement capabilities. But if there is a substantial showing of a real problem, then I certainly would not hesitate to consider it if that seems to be the only way we can go, but that would carry a very great burden as well. If there are no other questions, we will vote the item."

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[The Notice of Inquiry is adopted, 5-0.]

[Private Radio Bureau Chief Ralph Haller/N4RH, at a press conference following the FCC meeting:]

"In this item there is a concern, brought to our attention by the American Radio Relay League, in which amateur radio equipment that is being manufactured almost all of it offshore, being built for a worldwide market, and because technology now allows reception beyond the amateur bands, they go ahead and build it into the equipment.

"We think primarily due to a desire on the part of local communities to limit the use of scanners, not amateur radio equipment but scanners, in a vehicle for reception of police calls, that amateurs in fact have a legitimate right to use their equipment in a vehicle if they're license, and have a legitimate need to monitor frequencies outside the amateur band as they assist police agencies and the federal government in emergencies and such, that they inadvertently have been included in some of these scanner laws.

"So we are asking several questions in the inquiry, and will make a decision. Two of the Commissioners indicated that we have a very high standard before we actually pre-empt, so I would encourage those who are interested in this to make sure that the record is very complete not only in terms of what the amateur community is interested in but also in terms of what state and local governments are interested in ...whether there is really a need for the amateur service to monitor those frequencies, whether it's helpful, or whether in fact the scanner laws are exactly what they were meant to be.

"The primary focus of the inquiry is amateur, but a question is asked specifically about the GMRS because of comments to that effect when the ARRL petition was adopted."

#### Reaction from Experts

The full text of the NOI was not available at presstime. But we asked for some initial reactions from two prominent 'radio activists'.

"It's incumbent upon us to make clear that this [modification] is not only a formidable technical redirection, but it would be impossible to implement from an enforcement standpoint," said Bob Grove/WA4PYQ of Brasstown, NC - publisher of Monitoring Times magazine. "The number of receivers and transceivers presently in use would number in the tens of millions. Obviously, a recall is not even worth considering."

"We always have to be wary of hidden agendas at the FCC," according to Robert Horvitz, radio consultant to the Internews Network and former lobbyist for the Association of North American Radio Clubs.

"Since the FCC decided to consider warning labels for scanners but not for cellular phones, and they liberalized Part 15 without setting

susceptibility standards for consumer electronics, one has to wonder whether they're really motivated by public interest or business

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interests. If there is a conflict between state and federal regulations, the better solution is for the states to drop their restrictions on mobile scanning," he said.

Interestingly, monitoring of non-scrambled public-safety communications is expressly allowed by the Electronic Communications Privacy Act of 1986. But that permission may gradually become moot if receivers that cover public-safety bands become impossible to buy.

[End this issue]

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A R T I C L E S

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RAMSEY FM-10 STEREO TRANSMITTER KIT REVIEW

WB8EOH Gizmo Report  
(Very Long)

The Ramsey FM-10 is a low power FM stereo transmitter kit that is easy to build and has many practical applications around the home and ham/swl shack. After living with one for several weeks, I could never go back to life before I acquired this little "freedom machine". The audio quality and stability of the signal give the unit many HI FI type applications, and indeed I am already planning to buy another unit to patch into the Audio/Video system.

Egad, you mean you have to BUILD this thing?

When my XYL saw that this package I had spent fifty bucks on consisted of a couple of polyethylene bags full of plastic bugs and little metallic button like pieces, she shook her head in dismay. Though I tinker with computer and radio gizmos all day long, I will admit that the past 20 years have seen me become an "appliance operator" more content to sit back and PLAY than get in there and tear into the circuitry, much less build something from scratch. Well, the folks at Ramsey have honed the art of kitbuilding, and even a klutz like me CAN have the satisfaction (like in the old Heath ads) to say "I built it

myself".

Constructing the FM-10 was in part a happy trip down memory lane. In my distant youth, one of my happiest memories was the construction and operation of an Allied Radio Knight Kit #83Y706 three tube AM Phono Oscillator. This wonderful little gadget paved the way not only for my interest in Ham radio, but also got me interested in broadcasting, a field which put bread on the table for many years. Well in the more than 30 years between the two kits, things sure have changed.

First right off, don't even think about dragging out the old Weller soldering gun and the old roll of Kester solder. First thing I had to do was borrow a low wattage iron, and get some super thin solder. The Lifetime Supply of solder I bought in 1968 (five pounds) was fine for antenna work, and gobbing up audio connectors, but the old stuff is actually WIDER than many of the separate connections on the FM-10 PC board. EGAD these components are TINY.

Kudos to Ramsey for their whole concept. The manual is very well written. My only problem was I did not get the companion booklet on how to build a kit (the generic HOW TO SOLDER book). Well I hoped that the instructions that came with my 1957 Knight Kit still applied, because I remember them. Heat the component, don't glob it all over the place, and try not to melt the PC board. I was on my own to develop a technique. Ramsey even takes this into account by having you mount some of the larger "landmark" components first, namely three RCA jacks (left and right audio and the antenna jack).

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Now I wanted this thing to work. I would not be able to face Elaine if it became necessary to send the completed unworking mess back to Ramsey for their \$18 an hour bail-you-out plan. So I took absolutely extraordinary steps. With a (borrowed) digital meter, I measured every resistor, even though Ramsey gives the color code for each one in the manual as you install it.

One of the nicest touches is the GIANT print of the PC board, upon which you place all the components in the same place they will go in the final kit. I did this with most of the components, except for the multitude of .01 capacitors, which I left neatly together (Ramsey uses a masking tape type medium for keeping similar value components together).

The scariest moment for me was soldering in the 18 pin DIP socket that

houses the heart of the kit, a ROHM stereo transmitter on a chip. We are talking TEENY TINY little pins separated by seeming microns. EGAD. After each dot of solder, I held the PC board a quarter inch from my eyeballs to make sure there were no solder bridges. And I measured all the components with the Digital meter a second time before installing each one. You probably won't take these extraordinary steps, which make the simple kit an all night project.

But it was a FUN night. The scent of melting tin/led/rosin... The occaisional absolutely PERFECT joint... Kitbuilding is not only an art, it is positively a cosmic experience. It is relaxing, creative, and there is the anticipation of all the wonderful things you will do with your kit upon completion.

3:25AM

Ah. The moment of truth.

Connect the nine volt battery, push the power switch, and TUNE around on the FM radio to find the carrier.

And I found.....

NOTHING.

It did not work.

Now this is where we separate the men from the boys. How well you manage not to throw the thing through the window.

So I went back through the whole manual. checked EVERY joint. Eyeballed EACH component. I could find NOTHING wrong.

Elaine came into the shack as I was holding the PC board. I hated to admit defeat. But I told her it did not work.... yet.

She held the board and looked at it with wonder. She could not believe that I had placed each of the little parts in their places. She told me I would figure out what was wrong with it.

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The next day, I went through the manual again. I took voltage measurements, and found all the proper voltages on the chip and RF amplifier. I was stymied.

Then I looked very closely at the OTHER side of the board. I stared at the ROHM chip, which Elaine had called a "train trestle". Hmm. I wonder if I pushed on the chip if it would go in any farther.

Push. Click. It snapped into place.

I pushed the power switch, turned on the FM radio, and found a nice clean carrier at 102.3, with the stereo light blazing away in pure clear silence.

Hot DAWG it WORKS!

First thing I did was to move the frequency. Since it was transmitting on top of one of the local stations, this seemed in order. Ramsey's manual stresses the importance of selecting a clear channel so as not to bring the wrath of neighbors and the FCC. Up here in the boonies, there is a tremendous clear swath from about 98 Mhz to 102 mhz. (I plan to pouplate it).

The next thing required is adjustment of the subcarrier frequency and stereo balance. Surprisingly mine was already right on for the subcarrier adjustment, and I found out that this adjustment is actually pretty critical. There is a test point if you have a freq counter to get it exactly on 19khz, but it can be done by just turning the little variable capacitor until the stereo light goes on.

The "stereo balance" control takes a bit of explaining. This is not a simple LEFT-RIGHT adjustment, but actually adjustment of the level of left MINUS right. It is more of a separation adjustment, and also seems to have a real effect on tonal quality. It took quite a bit of diddling to get it right, and there seems to be some interaction between the two controls, as the stereo light will go out just when you think you have the sound right... The end result is a surprising quality signal with amazing separation. However, one thing to make note of... The FM-10 is designed with NO audio level controls. This is a bit of an oversight, because when using it with components that have fixed level output, the unit is prone to overmodulation. You MUST be able to lower the audio level of whatever it is you are feeding to the transmitter, as it is too sensitive with EVERY component I tried connecting direct. Once you get the level under control, though, it actually sounds better than many local FM stations because the signal is not run through all sorts of "Enhancers" that broadcasters use to be the loudest thing on the band. I did find though that adding an audio limiter (an old DBX 119) really helped tame the overmodulation problem.

I finished the project by mounting it in the \$12.95 Ramsey Kit

cabinet. OK, this is where the Ramsey guys make a few bucks. It does give the kit a finished look, but I would have to say that this is a bit dear for a simple plastic case. I think the next one will be

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built into a VIDEOTAPE plastic case or other cheapo cabinet.

One oversight is that there is no hole in the cabinet for the whip antenna which mounts to the circuit board. Ramsey suggests constructing a dipole or groundplane antenna, which I did initially in the final installation in my hamshack. I have since stopped using this antenna however (more on why later)

#### OK NOW WHAT CAN I DO WITH THIS LITTLE GADGET

Ramsey gives many practical applications in the manual. I found the unit handy for listening to MDS stereo TV on a little sony walkman in the wee hours without having to run headphone cords. Remote listening of ANYTHING on your main stereo system in any room in your home by just tuning the radio is just ONE thing the kit can be used for.

My own application is a bit unique. I have the FM-10 in my ham/swl shack, and it is connected to a stereo mixer, to which I have several receivers patched in. I am a communications junkie and often in the shack I listen to several things at once. The only problem is that one can not stay in ones hamshack all day long. Well with the FM-10 and a pocket stereo receiver, you can monitor whatever you wish in your home or yard. Now since the Ramsey Kit is a STEREO transmitter, you can do what I do (if you are insane enough) I have a 2 meter rig on the LEFT channel, scanner on the RIGHT channel, and the HF rig panned dead center. The ears and the brain manage to sort it all out. I feel sorry for any of the neighbors who happen to tune in when in this configuration (when I am in my active monitoring mode).

#### No Code, No License, No Kidding It's LEGAL

Now speaking of neighbors, lets focus for a moment on the LEGALITY of using this kit under part 15 of the FCC rules. In 1989, the FCC revised part 15, changing the way the measurements are taken to determine if a device is legal. The new standard is: 250 microvolts per meter. A calibrated Field Strength Meter is needed to make sure the signal complies with this regulation (FCC rule 15.239). Beyond this, part 15 requires that the unit produce no interference to licensed stations. Basically those are the rules. What you put on the device is YOUR business. It comes under the same type of

regulation as cordless phones, baby monitors, and walkie talkies. the only difference is that this unit operates in a BROADCAST band rather than a semi-hidden part of the spectrum like the others.

The Ramsey manual has a chart that shows that even if one complies FULLY with this measurement, the transmitter has a surprising range. Doing the math of the inverse square law, we find that there is still .41 microvolts at 5000 feet from the transmitter, nearly a mile. Since the Ramsey kit has a FINAL AMPLIFIER, it is much more powerful than a similar kit sold by another manufacturer which uses the chip output only (that one can be heard well within only 20 feet). I found that the kit with a dipole antenna cut to the operating frequency has TOO MUCH range for my own use. Those who wish to "Play DJ" might be interested in running the recommended dipole antenna (making CERTAIN they make the Field Strength Measurement) to get the maximum range out

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of the unit. I found that just a small piece of wire gives me all the coverage in my home that I need.

For someone interested in providing a broadcast type service, to a college dorm, apartment complex or local neighborhood (Legally the signal can be quite loud over a quarter mile away) It can be legally done under part 15 of the present FCC rules (as amended in June of 1989) by simply adding a mixer, microphone, and sound sources to the Ramsey Kit.

An application I am considering is connecting the audio output of my new satellite system and tuning it to the BBC audio feed and just leave it run that way when I am not using the dish for other purposes. This way I can enjoy BBC in FM quality and so can my immediate neighbors. Now before the flames begin, please remember that copyrights, etc, do not apply to part 15 transmissions. You can put on ANYTHING you want. Just as if you were listening on closed circuit speakers. The only difference is that your immediate neighbors CAN also enjoy the transmissions as well.

FCC RULE 15.215(a) Says: "Unless otherwise stated, there are no restrictions as to the types of operations permitted under these sections." This general provision \*APPEARS\* to leave you free to use the fm transmitter for just about ANY type of operation you desire, including becoming a "legal low power broadcaster".

Now the nitty Gritty:

RAMSEY FM-10 FM STEREO TRANSMITTER KIT

Price: Circuit Board and Components -- \$29.95  
Cabinet (black plastic) -- \$12.95

Shipping add 6%.

Ramsey Electronics  
793 Canning Parkway  
Victor, NY 14564

(716) 924-4560 (Voice)  
(716) 924-4555 (FAX)

- o Operates from internal 9 volt battery
- o Choice of onboard whip or external antenna
- o Stable output, from 88 to 108 MHz
- o Left and Right channel RCA line audio input jacks
- o Use with Mixers, cassette or CD decks etc.
- o Clear, step-by-step assembly instructions
- o Helpful information on FCC rules included

TYPICAL USES:

- o Extension of home stereo system without wires
- o Student-operated school radio station
- o Home or neighborhood radio station

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- o College dorm favorite music broadcast service
- o Listening aid for auditoriums, churches

NOTE1: I am in NO WAY affiliated with Ramsey Electronics other than being one of their very satisfied customers.

NOTE2: If you plan to use the kit as a "broadcasting" service, I would STRONGLY SUGGEST you have the output level CERTIFIED by an engineer ascertaining for SURE it is no more than 250 microvolts per meter. This kit has an almost amazing range, and I imagine it could very easily exceed LEGAL SPECIFICATIONS if you are not careful.

== WB8EOH = The Eccentric Old Hippie = WB8EOH ==

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10-10 INTERNATIONAL NET Officials

President	Norm Lefcourt	W6IRT
Vice President	Hugh Sullivan	WA4QZU
Secretary	Marge Smothers	WA6ZPX

Treasurer           Gerry Gross           WA6POZ

Directors:       Peggy Pinell           G3MAE  
                  Elaine Nickoloff       N8CBE  
                  Linda Barnes           KJ4FM  
                  Don Weaver           K0JPW  
                  Gary Ward           KD7UZ  
                  Jack Miller           W9WYN  
                  Pete Matson           KC1CP  
                  Tom Henderson       K4CIH  
                  Dave Prichard       KA50V0  
                  Marv Hagan           WB2SJQ

=====

Chapter Coordinator,       Hugh Sullivan   WA4QZU  
Chairman Contest Rules   Harry Syring   WB1FTQ  
Editor, 10-10 News,       Bob Arnold      N2JEU Int'l Net  
Int'l Net Manager       Sherm Sherman   K6PTF  
K6PTF Records Manager   Lee Pasewalk   WB6MGM  
Roster Manager           Dee Gilbert      KA6HQJ Supply Manager,  
Supply Manager           Dave Prichard   KA50V0  
PR & Publicity,          Chuck Imsande   W6YLJ Convention  
Convention Manager       Roy Moyer       WD8JKV  
Scholarship Manager,     Morrie Goldman   W6EHM  
Historian,               Jim Michaels    W6PGM

=====

#### NET CONTROL STATIONS

10-10 International Nets are all at 1800Z

Monday     Dusty     K6MPN   28.380  
Monday     Lovergne   KD6JC   28.800  
Tuesday    Al        W6RNX   28.800  
Wednesday Louise     N6ELK   28.800  
Thursday   Bill       WB60MH  28.800  
Firday     Sherm      K6PTF   28.800  
Saturday   Nat        8P6SA   28.800

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#### 10-10 International News -

The 10-10 International News is published four times annually by the 10-10 International Net, Inc. Each full member receives a copy. This is an independent publication. Permission to reprint is granted, providing suitable credit is shown.

News items and PHOTOS are to be sent to the Editor: Bob Arnold N2JEU

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RR # 5 BOX 32 CANASTOTA, N. Y. 13032. Voice Ph. # 315-697-7478 7  
to 11 PM Est/edt Eastern BBS Ph. # 315-697-7365 24 hrs 300/1200/2400  
Bps

Deadline for each quarterly issue is the 15th of the month preceding publication. Publication dates are approximately MID, January, April, July and October.

Technical articles and information on all 10 meter activities or news are welcome and solicited. All copy submitted should be typed, using 8 1/2 X 11 plain white paper. Photographs, when submitted, should be black and white (color is acceptable but not as good). Include complete information on subject matter, call signs, names, 10-10 number chapter names, etc. Be sure to reference the information to a specific picture. Do not write on BACK of photo. Please include your Phone Number should more information be necessary.

All 10-10 chapter activities and reports should be sent to the Chapter Coordinator, Hugh Sullivan, WA4QZU, 4630 Towne Square Ct. #12, Owensboro, KY 42301

#### AWARDS MANAGERS

100-900 Bars	Glen Harding	K70MK
1000 Bar UP	Ed Neal	N5EBA
VP Awards	Hiram E. Wolf	W4NWP
Continents Awd	Chuck Imsande	W6YLJ

All States Award	Susan Brackeen	KA1CAD
Countries Award	Alan Sherman	K1AS
Lucky 13 Award	Glen Harding	K70MK
Counties Award	Alice Jenkins	NR4R

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#### 10-10 INFORMATION AND AWARDS

##### MEMBERSHIP

Work 10 members. LOG each 10-10 number, call sign, operator's name and location. Send list to your numeric call sign or DX area manager, with \$5.00 U.S new member registration fee. \$6.00 (foreign). Life and family memberships are available as well as annual. You will be issued a certificate of membership as well as a permanent 10-10 number. You will receive the 10-10 International Net news publication mailed regularly to all full members.

##### AWARDS

To apply for ANY of the 10-10 awards listed below, proof of paid-up membership is MANDATORY. A copy of your membership card or the address label from your copy of the 10-10 News must be sent with the award application.

##### BARS AND PLAQUES

Work 10-10 members with on the air 2 way communication, exchange numbers etc. Only 200 numbers per list may be submitted.

1. List numbers in numerical order, call sign of station worked, operator's name and location (QTH).
2. Submit only one list at a time.
3. Include YOUR name, CALL, 10-10 number and state which 100 bar you are requesting.
4. Enclose with your list a 4X9" envelope self addressed and stamped

(SASE) with enough U.S. postage to return to you.

5. A 500 bar certificate costs \$1. Plaques for working 1,000, 2,500, etc. cost \$5.00 U.S. currency postpaid.

#### INTERNATIONAL 500 OF THE WORLD

With the 500 BAR comes an Honorary VP number, membership in the International 500 of the world, and eligibility to go after the following two awards:

1. V.P. Certificate: For VP's who work 100, 200, etc. other V.P. members. Contacts must be made above 28.9 MHz or below 28.55 MHz. Each contact must last at least 5 minutes or more. For complete rules and cost send a 4" X 9" SASE to: Hiram E. Wolf, W4NWP, 126 W. 37th St., Riviera Beach, Fl 33404.
2. Lucky 13 Certificate: Work 13 different V.P. members. Each contact MUST be in a different 100 kHz segment between 28.5 and 29.7 MHz. Forms and rules are available from Glen Harding, K7OMK, PO BOX 133, Garden City, SD 57236

#### WORKED ALL STATES (WAS)

Work and get QSL confirmation from one 10-10 member in each of the 50 states. For complete rules, application form and cost send a 4" X 9"

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SASE to: Susan Brackeen, KA1CAD, Rte 6 Box 151, Booneville, MS 38829.

#### COUNTRIES AWARD

QSL confirmation of QSOs with 25 or more 10-10 member countries. For complete rules, application form and cost send a 4" X 9" SASE to: Alan Sherman, K1AS, RR # 4, Box 422, Danielson, CT 06239.

#### WORKED ALL CONTINENTS

QSL confirmation of QSOs with a 10-10 member in each of the six continental areas. For detailed rules, application form and cost send a 4" X 9" SASE to: Chuck Imsande, W6YLJ, 18130 Bromley St. Tarzana, CA 91356.

COUNTRIES: 10-10 COUNTRIES Award Manager For complete rules, costs and Application form send SASE to -----

Alice Jenkins, NR4R  
1 Mitchel Lane  
Rossville, GA 30741

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10-10 INTERNATIONAL AREA MANAGERS

U.S.A. 1st. Call area Al Kaiser N1API  
194 Glen Hills Rd.  
Meriden, CT 06450

2nd. " " Larry Berger WA2SUH

9 Nancy Blvd.  
Merrick, NY 11566

3rd. " " Chester Gardner N3GZE  
9028 Overhill Dr.  
Ellicott City, MD 21043

4. FL, PR, Dave Buschow WD4MPG  
2319 Contest Lane  
Haymarket, VA 22069

4. VA, NC, SC Tom Henderson K4CIH  
4901 15th Place E.  
Tuscaloosa AL 35404

4. KY, TN Rick Roberts N4KCC  
7106 Bridgestone Dr.  
Ooltewah TN 37363

4. GA, AL Jim Beswick W4YHF  
112 Owl Town Farm  
Ellijay, GA 30540

5th. Call area Grace Dunlap K5MRU (Oct to June)  
BOX 445  
LaFeria, TX 78559

5th. " " Grace Dunlap K5MRU (June to OCT)  
BOX 13  
Rand, CO 80473

6th. " " Dick Rauscher W6ANK  
4371 Cambria Street  
Fremont, CA 94538

7th " " Willie Madison WB7VZI  
10512 W. Butler Dr.  
Peoria, AZ 85345

8th " " John Hugentober N8FU  
4441 Andreas Ave.  
Cincinnati, OH 45211

9th " " Berniece Tielmann N9CDO  
11301 NA Darmstadt Rd  
Lenzburg, IL 62255

10th CO,KS,MO,NE Judy Long WD0DHH

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2681 Aster Street  
Pueblo, CO 81005

10th IA,MN,ND,SD Debbie Peterson N0KQC  
RR #1 BOX 35  
Duncombe, IA 50532

ALL COUNTRIES EXCEPT VK, ZL and USA  
Carol Hugentober K8DHK  
4441 Andreas Ave.  
Cincinnati, OH 45211 U.S.A.

VK Australia Les Olsen VK2JL0  
3 Noumea St.  
Shalvey 2770, NSW, Australia

ZL New Zealand T.J. (Mac) McKenzie ZL3RK  
73 Cygnet St.  
Christchurch 9, NZ

10-10 International Database - Send SASE to following address for more information.

Gerry Gross WA6POZ  
643 N. 98th. #142  
Omaha, NE 68114

10-10 International News Editor - Bob Arnold N2JEU RR 5 Box 32  
Canastota, NY 13032

BBS available at (315) 697-7365 - 300/1200/2400 bps Fidonet 1:260/304

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R E S P O N S E

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FidoNet Ham/Packet Digest Questionare

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Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State/Province/Other: \_\_\_\_\_

Country: \_\_\_\_\_

Are you an Amateur Radio Operator? \_\_\_\_\_

If so, what is your call sign? \_\_\_\_\_

How long have you been licensed? \_\_\_\_\_

Where did you get this issue? \_\_\_\_\_

In a few brief comments, could you tell me what you like, or  
dislike about the Fidonet Ham/Packet Digest? Your feedback is  
appreciated!

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Please mail this back to : Brian J. Murrey - KB9BVN  
1010 Ashland Ave.  
New Whiteland, IN 46184  
United States of America

Thank You !

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GOODTEES

## Software Distribution Notice

The Ham Packet Digest is complied in Indianapolis by Brian Murrey (KB9BVN), and distributed from Fidonet node 231/30. Since we are a regular BBS here, we have file areas available to our users to download from.

At this time, anyone can access the SouthSide BBS by calling 317-535-9097 and logging in as Ham Radio. Use YAGI for the password. This will allow you do download on your first call, your access is limited to the Ham Radio files area though.

The BBS supports 1200/2400/9600HST speeds and will not accept a 300

baud call. The hours of operation are 5am to 3am, in other words the BBS is closed to human callers from 3am to 5am in order to process incoming and outgoing mail.

If you are a Fidonet node, you may request FILES for a complete listing of the files that we have available for file request.

You may also request by US Mail a list of Ham files that are available, there is no charge for this or any service provided by the BBS. The files list will be made available on floppy disk, no print outs will be sent out.

To obtain list by mail simply mail a blank formatted 3.5 (720K) or 5.25 (360) diskette to the address printed in the user survey (why not fill out the survey while you're at it) along with a postage paid return mailer. Once you receive the list, you can send whatever floppies it takes to have us copy the programs for you and mail your disks back. You MUST include return postage. Nothing will be sent back to you unless you have included return postage.

We are also interested in trading files with other systems, if you would be interested in this then contact Brian Murrey at 231/30 via netmail.

The software that we have to offer is a mixture of public domain, and shareware software. We charge nothing for the software but do require return postage. If you use shareware software, please, send in the registration fees or discontinue your use. Shareware is NOT free software whereas public domain software is free.

Brian Murrey - KB9BVN